

AMENDMENTS TO THE CLAIMS

Pursuant to 37 C.F.R. § 1.121 the following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended): A system for automatic context management for testing, monitoring and automating a network application having client side executable code, said system comprising:

a computer having a CPU and a storage device; and
a computer-readable medium encoded with a computer program configured to perform
the steps of

~~a tool operable to parse~~ parsing said client side executable code so as to determine a subsequent state of the network application free of interaction with a user,₁[[;]]

~~a recorder operable to record~~ recording at least one context-full test script,₁[[;]] and

~~a replay engine of said tool having~~ providing a context-full API, and

replaying ~~said replay engine operable to execute~~ said context-full test script.

2. (Original): The system according to claim 1, wherein said context-full API is based on a page-level API.

3. (Previously Presented): The system according to claim 2, wherein said context-full API based on a page-level API comprises an extensible document parser operable to determine at least one parser extension.

4. (Original): The system according to claim 3, wherein said at least one parser extension includes a replay instruction specifying at least one parser addition and parameters for said parser addition.

5. (Previously Presented): The system according to claim 4, wherein said parser addition includes a plug-in module for said extensible document parser.

6. (Original): The system according to claim 3, wherein said extensible document parser is capable of being extended with at least one parser extension.

7. (Previously Presented): The system according to claim 4, wherein said at least one parser addition for said parser extension is selected from a library of parser additions.

8. (Original): The system according to claim 7, wherein each of said parser additions of said library of parser additions implements a specific parsing algorithm.

9. (Currently Amended): The system according to claim 8, wherein the at least one parser addition of said library of parser additions implements an algorithm for parsing hyperlinks from a HTML document.

10. (Currently Amended): The system according to claim 8, wherein the at least one parser addition of said library of parser additions implements an algorithm for parsing forms from a HTML document.

11. (Currently Amended): The system according to claim 8, wherein the at least one parser addition of said library of parser additions implements an algorithm for parsing embedded documents from a HTML document.

12. (Original): The system according to claim 9, wherein said algorithm parses hyperlinks by searching text between a left and a right boundary string.

13. (Original): The system according to claim 2, wherein said context-full API comprises form merging replay instructions.

14. (Previously Presented): The system according to claim 13, wherein said form merging instructions comprise:

a reference to a form in a previously downloaded web page, said form in said previously downloaded web page being an HTML form;

a reference to a form in said at least one context-full test script, said form in said at least one context-full test script being a script form; and

instructions for merging said HTML form and said at least one context-full script form to produce a form to be submitted.

15. (Previously Presented): The system according to claim 14, wherein:

said instructions for merging said HTML form and said script form comprise merging instructions for each individual form field of said HTML form and said script form; and

said merging instructions for each said individual form field comprise at least one member selected from the group consisting of:

an instruction to send a form field value obtained from said HTML form;

an instruction to send a form field value specified in said script form; and

an instruction to not send one of said form fields.

16. (Original): The system according to claim 15, wherein said merging instructions comprise an instruction to use an action URL in said test script instead of an action URL obtained from said HTML form for said form to be submitted.

17. (Currently Amended): The system according to claim 1, wherein said recording step ~~recorder is operable to record~~ records a page-level test script comprising parser extensions and form merging instructions.

18. (Currently Amended): The system according to claim 17, wherein said recording step ~~recorder is operable to track~~ tracks a session history by building representations of all web pages downloaded so far during a recording session.

19. (Currently Amended): The system according to claim 17, wherein:

said context-full API is based on a page-level API;

said context-full API based on a page-level API comprises an extensible document parser; and

said recording step ~~recorder is operable to utilize~~ utilizes said extensible document parser to parse at least one HTML document.

20. (Currently Amended): The system according to claim 17, wherein said recording step ~~recorder is operable to~~ automatically ~~detect~~ detects which of said parser extensions and said form merging instructions are needed in order to record a test script which will correctly use dynamic information during a script replay.

21. (Currently Amended): The system according to claim 20, wherein said recording step ~~recorder is operable to detect~~ detects the need for recording at least one of said parser extensions by detecting that a context-less replay instruction is to be recorded otherwise.

22. (Currently Amended): The system according to claim 20, wherein:

said context-full API comprises an extensible document parser;

said extensible document parser comprises at least one parser extension which is a replay instruction specifying at least one parser addition and parameters for said parser addition;

said parser addition for said parser extension can be chosen from a library of parser additions;

each of said parser additions of said library of parser additions implements a specific parsing algorithm; and

said recording step ~~reorder is operable to detect~~ detects which one of said parser extensions is to be recorded by querying each of said parser additions for suitable parameters.

23. (Currently Amended): The system according to claim 1, wherein said recording step ~~reorder is operable to record~~ records form merging instructions by performing fuzzy form detection.

24. (Currently Amended): The system according to claim 23, wherein said recording step ~~reorder is operable to perform~~ performs fuzzy form detection by comparing a form being submitted to all forms in a session history, operable to choose a form from said session history which is most similar to said form being submitted; and further ~~operable to record~~ records said form merging instructions so that said recorded form merging instructions applied to said form chosen from said session history result in a form identical to said form being submitted.

25. (Currently Amended): The system according to claim 1, wherein said ~~replay engine is operable to~~ replaying step execute said context-full test script, said context-full test script comprising parser extensions and form merging instructions.

26. (Currently Amended): The system according to claim 25, wherein said ~~replay engine~~ ~~is operable to track~~ replaying step tracks a session history by building representations of all web pages downloaded so far during a replaying session.

27. (Currently Amended): The system according to claim 25, wherein:

said context-full API is based on a page-level API;

said context-full API based on a page-level API comprises an extensible document parser; and

said ~~replay engine is operable to use~~ replaying step uses said extensible document parser to parse at least one HTML document.

28. (Previously Presented): A method of fuzzy form detection, said method comprising the steps of:

comparing a form to be submitted to at least one form in a session history;

generating data based upon differences resulting from the comparing step;

performing said comparing and generating steps for each form in said session history;

choosing one of the forms in said session history having the greatest similarity to said form to be submitted based upon the generating step results; and

applying form merging instructions to said chosen session history form to obtain a resulting form that is substantially identical to said form to be submitted.

29. (Previously Presented): A device for automatic context management for testing, monitoring and automating a network application having client side executable code , said device comprising:

a processor; and

a memory storing processing instructions for controlling the processor, the processor operative with the processing instructions to:

record at least one context-full test script; and

execute said context-full test script using a context-full API for a replay engine of a tool, said tool operable to parse said client side executable code so as to determine a subsequent state of the network application free of interaction with a user.

30. (Previously Presented): A device for automatic context management for testing, monitoring and automating a network application having client side executable code , said device comprising:

a processor; and

a memory storing processing instructions for controlling the processor, the processor operative with the processing instructions to:

record at least one context-full test script;

determine at least one parser extension using an extensible document parser of a context-full page-level API for a replay engine of a tool, said tool operable to parse said client side executable code so as to determine a subsequent state of the network application free of interaction with a user;

include a replay instruction specifying at least one parser addition and parameters for said parser addition in said at least one parser extension;

select said parser addition for said parser extension from a library of parser additions;

implement a specific parsing algorithm using each of said parser additions of said library of parser additions;

implement an algorithm for parsing hyperlinks from a HTML document using said parser addition of said library of parser additions;

parse hyperlinks by searching text between a left and a right boundary string using said algorithm; and

execute said context-full test script using said context-full page-level API for said replay engine.

31. (Previously Presented): A device for automatic context management for testing, monitoring and automating a network application having client side executable code , said device comprising:

a processor; and

a memory storing processing instructions for controlling the processor, the processor operative with the processing instructions to:

record at least one context-full test script;

generate form merging replay instructions in a context-full page-level API for a replay engine of a tool, said tool operable to parse said client side executable code so as to

determine a subsequent state of the network application free of interaction with a user, and said form merging instructions comprising: a reference to a form in a previously downloaded web page, said form in said previously downloaded web page being an HTML form; a reference to a form in said test script, said form in said test script being a script form; and instructions for merging said HTML form and said script form to produce a form to be submitted; and

execute said context-full test script using said context-full page-level API for said replay engine.